

PATENT APPLICATION

Attorney Docket No. 07589.0116.PCUS00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: HÄGGANDER, Jan *et al.*
SERIAL NO.: 10/604,321 **GROUP ART UNIT:** 3726
FILED: 07/10/2003 **EXAMINER:** Unknown
ENTITLED: METHOD FOR MANUFACTURING OUTLET NOZZLES FOR ROCKET ENGINES

Office of Initial Patent Examination's
FILING RECEIPT CORRECTIONS
 United States Patent and Trademark Office
 Alexandria, VA 22313-1450

(Via Facsimile – 7 sheets)

REQUEST FOR CORRECTION TO FILING RECEIPT

We are attaching a marked-up copy of the **FILING RECEIPT** for the above referenced Patent Application. In our review of the document, we note missing *Domestic Priority* data.

Please consider this Applicants' formal request for correction of the *Domestic Priority* data to read as follows:

**This application is a CON of PCT/SE02/00024 01/09/2002
 which claims benefit of 60/261,049 01/11/2001**

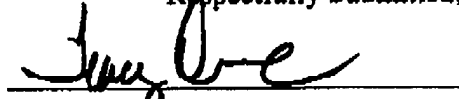
Also attached, please find a copy of the Declaration/Power of Attorney that was filed electronically with the present patent application on 10 July 2003 AND a copy of the 1st page of corresponding International Application No. PCT/SE02/00024 to serve as verification for entry of the above.

Please contact the undersigned representative in the event that a telephone conference can resolve any remaining issues in this application or hasten its progression towards Examination.

Dated: 4 Nov. 2004

HOWREY SIMON ARNOLD & WHITE, LLP
1299 Pennsylvania Avenue, NW
Washington, DC 20004-2402
Phone 202.783.0800
Fax 202.383.6610

Respectfully Submitted,



Tracy W. Druce
Attorney for Applicants
Reg. No. 35,493



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER OF PATENTS AND TRADEMARKS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 www.uspto.gov

APPL NO.	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/604,321	07/10/2003	3726	750	07589.0116.PCUS00	4	14	1

28694

HOWREY SIMON ARNOLD & WHITE LLP
 1299 PENNSYLVANIA AVE., NW
 BOX 34
 WASHINGTON, DC 20004

RECEIVED
 DOCKET DEPT.

SEP 2 5 2003

WASHINGTON, D.C.

CONFIRMATION NO. 1320

FILING RECEIPT



OC000000010904918

DOCKETED

Date Mailed: 09/23/2003

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-746-9196. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

Jan HAGGANDER, Trollhattan, SWEDEN;
 Jan LUNDGREN, Grundsund, SWEDEN;

Assignment For Published Patent Application

VOLVO AERO CORPORATION, Trollhattan, SE;

Domestic Priority data as claimed by applicant

This application is a CON of PCT/SE02/00024 01/09/2002

which claims benefit of 60/261,049 01/11/2001

Foreign Applications

SWEDEN 0100077-7 01/11/2001

Projected Publication Date: To Be Determined - pending completion of Security Review

Non-Publication Request: No

Early Publication Request: No

Title

METHOD FOR MANUFACTURING OUTLET NOZZLES FOR ROCKET ENGINES

Attorney Docket No. 07589.0116.PCUS00**DECLARATION FOR PATENT APPLICATION**☒ Original☐ Supplemental☐ Substitute☐ PCT

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below), or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

METHOD FOR MANUFACTURING OUTLET NOZZLES FOR ROCKET ENGINES

(Title of the invention)

the specification of which (check one)

☒ is attached hereto.☐ was filed on _____ as Application Serial No. _____.☐ was described and claimed in PCT International Application No. -- filed on -- and as amended under PCT Article 19 on -- (if any).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the patentability of this application in accordance with Title 37, Code of Federal Regulations, § 1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 (a) - (d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified, by checking the box below, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Applications			Priority Claimed		Copy Attached	
Application Number	Country	Foreign Filing Date (MM/DD/YYYY)	YES	NO	YES	NO
0100077-7	SWEDEN	01/11/2001	X			

I hereby claim the benefit under Title 35, United States Code § 119(e) of any United States provisional application(s) listed below and claim the benefit under Title 35, United States Code, § 120 of any United States application(s), or § 365(c) of any PCT international application(s) designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application(s) in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

Declaration for Patent Application
Page 2

Parent Application Number	Filing Date (MM/DD/YYYY)	Status (Mark Appropriate Column Below)		
		Patented	Pending	Abandoned
60/261,049	01/11/2001			
PCT/SE02/00024	01/09/2002			

As a named inventor, I hereby revoke all prior powers and appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith:

FIRM NAME: HOWREY SIMON ARNOLD & WHITE, LLP, 1299 Pennsylvania Avenue, NW, Box 34, Washington, D.C. 20004-2402.

Abair, Jason C.	44,007	Gleason, Mark L.	39,998	Nation, Floyd R.	27,580
Allen, Billy C.	46,147	Gold, Darren	47,599	Nimmo, Anthony	30,920
Arnold, Tom	16,702	Grimaldi, Alan	26,599	Norris, John D.	28,246
Aucherloine, Richard C.	30,607	Halluin, Albert P.	25,227	Parris, Tracy S.	46,980
Auerbach, Robert P.	46,525	Harbison, Suzy	45,139	Patterson, Melinda L.	33,062
Barzoukas, Nicolas G.	38,823	Jackson, Brian L.	41,868	Petri, Henry A.	33,063
Bell, Michael J.	39,604	Jardieu, Derek J.	44,483	Pistricia, Andrew	40,772
Benson, Christopher R.	31,941	Kaplan, Jonathan T.	38,935	Pistorino, James C.	44,290
Bigornia, Luisa	45,974	Kammerer, Patricia A.	29,775	Reese, Scott R.	47,891
Bihaker, David L.	39,611	Kee, Nelson	47,700	Rhodes, Glenn W.	31,790
Cagle, Steve H.	26,445	Kelley, Christopher L.	42,714	Rooklidge, William C.	31,791
Cain, John C.	38,837	Kavilla, John R.	42,723	Rose, Collin A.	47,036
Caldwell, Rodney K.	26,152	Kewabramani, Shashi H.	43,713	Seaton, Bret	46,171
Callahan, Celine T.	34,301	Kim, Brian S.	41,114	Schnurr, Richard A.	30,890
Chasman, Peter J.	38,841	Kim, Kyung (Drew)	47,706	Seka, Mark A.	44,330
Chen, Jenny W.	44,604	Klann, Amy	48,155	Shurn III, Peter J.	29,439
Chiang, Robin	46,619	Knoll, Susan A.	33,254	Shutter, Jon D.	41,311
Chidhury, Indranil	47,490	Kung, Viola	41,131	Shvodian, Daniel T.	42,148
Cordrey, Gregory S.	44,089	Kuo, Vivian	45,456	Spears, Steven G.	43,926
Coverstone, Thomas	36,492	Laurenson, Robert C.	34,206	Stanley, Richard L.	36,936
Dalakis, Michael	47,322	Lavelle, Joe	31,036	Steinheider, Matt	47,968
Davidson, Ben M.	38,424	Lechtenberger, J. Dean	34,859	Stimson, Michael	45,429
Davidson, Ross E.	41,698	Lee, Michael E.	38,949	Tower, Andrew	37,742
Davis, James F.	21,072	Lewis, Terril G.	46,065	Valentine, James F.	39,053
Deaver, Albert B.	34,318	Livornese, Don F.	32,040	Voelzke, Joel D.	37,957
Devlin, Gerard M.	43,586	Lundell, Craig M.	30,284	Waack, Janelle D.	36,300
Dickinson, Todd	28,354	Lynch, John F.	22,504	West, William	22,057
Dickson, Mark S.	32,889	Madsen, Matthew L.	43,394	White, Carter J.	41,374
Dutton, Darrell G.	44,661	Mathews, Christopher A.	35,944	Whiting, Adam K.	44,400
Dowler, Michael S.	34,582	Mavrakakis, Thomas C.	39,763	Whitt, Jayna R.	47,175
Druce, Tracy W.	35,493	McAughan, Robert J.	36,599	Williamson, J. Paul	29,600
Duffay, Gregg A.	42,501	McAusland, Iain	37,980	Wong, Karen	44,409
Dudzik, Christine	31,245	McDermott, Sean	49,000	Wu, Wallace	45,380
Dunham, Thomas M.	39,965	McWhirter, Jill	47,788	Zises, Matthew S.	47,246
Durkes, William D.	20,337	Meola, Anthony L.	44,936		
Edwards, Stephen E.	38,865	Miller, Thomas A.	30,479		
Finkelstein, Ira D.	44,680	Miller, Thomas V.	42,002		
Flores-Jones, Connie J.	41,755	Moore, Matthew	42,012		
Garber, Scott J.	43,627	Nagel, Robert	45,353		

Declaration for Patent Application

Page 3

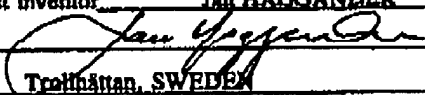
I acknowledge the above-listed attorneys and agents and their firm Howrey Simon Arnold & White LLP represent my employer (if I am an employee and this application has been or will be assigned to my employer) or the entity with which I have contracted (if I am an independent contractor and this application has been or will be assigned to such entity) and in such cases do not represent me individually. I further acknowledge I have not established, nor will I seek to establish, any personal attorney/client relationship with Howrey Simon Arnold & White LLP in connection with this application and understand that, should I require legal representation, I will obtain such, at my expense, other than through Howrey Simon Arnold & White LLP.

Send Correspondence to: **HOWREY SIMON ARNOLD & WHITE, LLP**
1299 Pennsylvania Ave. NW, Box 34
Washington, D.C. 20004-2402

Attn: Tracy W. Druce

Direct telephone calls to: Tracy W. Druce at (202) 383-7398

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or first inventor Jan HÄGGANDERInventor's signature Date June 6, 2003Residence Trollhättan, SWEDENCitizenship SWEDENPost Office Address Magnus Åbergsgatan 19, S-461 32 Trollhättan, SWEDENFull name of second inventor Jan LUNDGRENInventor's signature Date June 6, 2003Residence Grundsund, SWEDENCitizenship SWEDENPost Office Address Dammenvägen 17, S-450 33 Grundsund, SWEDEN

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
18 July 2002 (18.07.2002)

PCT

(10) International Publication Number
WO 02/055861 A1

(51) International Patent Classification: F02K 9/64, 9/97

(31) International Application Number: PCT/SE02/00024

(22) International Filing Date: 9 January 2002 (09.01.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0100077-7 11 January 2001 (11.01.2001) SE
60/261,049 11 January 2001 (11.01.2001) US(71) Applicant (for all designated States except US): VOLVO
AERO CORPORATION [SE/SB]; S-461 81 Trollhättan
(SE).

(72) Inventors; and

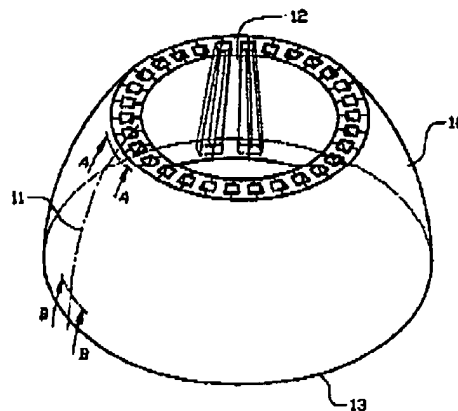
(75) Inventors/Applicants (for US only): HÄGGANDER,
Jan [SE/SB]; Magnus Åbergsgatan 19, S-461 32 Trollhättan
(SE). LUNDGREN, Jan [SE/SB]; Dammenvägen 17,
S-450 33 Grundsund (SE).(74) Agent: FRÖHLING, Werner, Otto; Volvo Technological
Development Corporation, Patent Department, CTP,
06820, Sven Hultins Gata 9C, S-412 88 Göteborg (SE).(81) Designated States (national): AB, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG,
SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VN, YU, ZA, ZM, ZW.(84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR,
GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent
(BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance
Notes on Codes and Abbreviations" appearing at the beginning
of each regular issue of the PCT Gazette.

(54) Title: METHOD FOR MANUFACTURING OUTLET NOZZLES FOR ROCKET ENGINES



(57) Abstract: A method for manufacturing an outlet nozzle (10) for use in a liquid fuel rocket engine. The nozzle forms a body of revolution having an axis of revolution and a cross section that varies in diameter along said axis. The nozzle has a wall structure comprising a plurality of mutually adjacent cooling channels extending substantially in parallel from the inlet end (12) of the nozzle to its outlet end (13). The method of manufacturing comprises the step of providing a plurality of preprocessed profile members, each having a web and flanges in opposite directions from said web. Each profile member is machined to present a longitudinally gradually tapering width. The member is curved to conform with the wall section of the nozzle, and members are joined by welding the flanges to form a bell-shaped nozzle structure with cooling channels (1) formed by adjacent webs and adjacent pairs of flanges.

WO 02/055861 A1